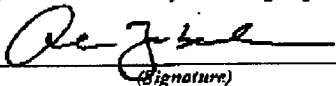


<b>CERTIFICATE OF TRANSMISSION BY FACSIMILE (37 CFR 1.8)</b> Applicant(s): CASSANDRE Michelle FECHT			Docket No. DC4998 CIP1
Application No. 10/827480	Filing Date 04/19/2004	Examiner Roberts, Lezah	Group Art Unit 1612
Invention: Substituted Hydrocarbyl Functional Siloxanes for Household, Health, and Personal Care Applications			
<p>I hereby certify that this <u>Pre-Appeal Brief Request for Review</u> (Identify type of correspondence) is being facsimile transmitted to the United States Patent and Trademark Office (Fax. No. <u>571-273-8300</u>) on <u>2-Mar-2009</u> (Date)</p> <p>Alan Zombeck (Typed or Printed Name of Person Signing Certificate)  (Signature)</p> <p>Note: Each paper must have its own certificate of mailing.</p>			

P18/REV02

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Application No. : 10/827,480 Confirmation No. 3304  
First Named Inventor : Cassandre Michelle Fecht  
Filed : 04/19/2004  
TC/A.U. : 1612  
Examiner : Roberts, Lezah  
Docket No. : DC4998CIP1  
Customer No. : 00137  
Date : March 2, 2009

Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Sir:

In response to the Advisory Action dated 02/23/2009, Applicants respectfully request review of the final rejection in the above-identified application for the reasons stated on the attached sheets.

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### Remarks

The first office action (3/10/2008) in the present application contained three rejections as follows;

*Claims 1-7, 9, 11, and 12 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of co-pending Application No. 10/827,478.*

*Claims 1-7, 9, 11, and 12 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.*

*Claims 1-7, 9, 11 and 12 were rejected under 35 USC 103(a) as being unpatentable over ROBINSON et al. (WO 02/03952, 17 January 2002) in view of BOLICH, JR. et al. (US 5965115).*

Applicant filed a response and amendments on 06/10/2008. Claim 1 was amended to include limitations of claim 3. Claim 3 was canceled accordingly.

The next office action, dated 9/17/2008, was a final rejection. In the 9/17/2008 rejection, the Office acknowledged Applicant's response and withdrew all previous rejections.

The 9/17/2008 office action asserted a **new rejection** based on 35 U.S.C. 102 using references previously not of record.

*Claims 1, 2, 5-7, and 9 were rejected as being anticipated by Hiwatari et al. (JP 2000336018).*

*Claims 1, 2, 5, 6 and 9 were rejected as being anticipated by Candau (US 6,033,648)*

*Claims 1, 2, 5-7, 11 and 12 were rejected as being anticipated by Kumar et al. (US 5,468,477).*

The office action was made final. It asserted the Applicant's amendment necessitated the final rejection. (*Applicant notes the final rejection was a new rejection, based on new references from the Examiner's search done after Applicant's 6/10/2008 response.*)

Applicant filed a response (dated 1/16/2009) to the final rejection requesting reconsideration. Applicant respectfully submitted in the 1/16/2009 response reasons why the 9/17/2008 novelty rejections were improper based on Hiwatari, Candau, and Kumar, as shown below.

The present claims are drawn to a composition comprising a hydrocarbyl functional organopolysiloxane. The hydrocarbyl group is defined as R<sup>1</sup> having the formula  $-(CH_2)_3OCH_2CH_2OH$ . The Hiwatari, Candau, and Kumar references disclose silicone polyether or silicone oxyalkylene substituted silicones where in all cases the oxyalkylene groups are described as being selected from a combination of EO (-CH<sub>2</sub>CH<sub>2</sub>O-) and PO (-C<sub>3</sub>H<sub>6</sub>O-) units. Applicant respectfully submits Hiwatari, Candau, or Kumar at best discloses a chemical formula that represents a genus of the present hydrocarbyl functional organopolysiloxanes. However, as noted in the MPEP 2131.02 for a generic chemical formula to anticipate a claimed species, the species should be envisioned at once from the formula. Applicant submits the generic formulae used in Hiwatari,

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Candua, and Kumar are so broad, and encompass such a large number of possibilities, that the present hydrocarbyl functional organopolysiloxane species as claimed are not "at once envisioned".

Furthermore, Applicant believes that Hiwatari, Candua, or Kumar fail to teach or suggest the selection of the present hydrocarbyl functional organopolysiloxane species as claimed. Rather, all three references emphasize structures containing multiple EO groups, as described in preferred structures or working examples. There is no specific teaching, suggestion or motivation in Hiwatari, Candua, or Kumar to select a hydrocarbyl functional organopolysiloxane as presently claimed. Thus, Applicant respectfully submits the present claims to be non-obvious in view of Hiwatari, Candua, or Kumar.

An advisory action was issued on 2/23/2009, maintaining the 35 U.S.C 102 rejections based on Hiwatari, Candua, and Kumar, and further stating;

Continuation of 11, does NOT place the application in condition for allowance because:

In regards to Hiwatari, the compounds having structures 9 and 10 encompass the formulas of the instant claims. The claims disclose several formulas that include various compounds encompassed by said formulas. The core silicone structure of the instant claims may have repeating units ranging from 1 to 500 whereas the corresponding core of the reference, having two variables, will each have a range of 1-1000. The end groups of the reference comprise formula 10 wherein the ethylene oxide group and the propylene oxide group have repeating units ranging from 0-50. Therefore one in the art would be able to envision the compound of the instant claims.

In regards to Candau, the instant claims encompass various compounds. Candau discloses compounds encompassed by the various compounds recited in the instant claims. Compounds of formula II in the reference encompass the instant claims and one of skill in the art would be able to envision the compounds based on the disclosure of the reference. The core silicone structure of the reference may have repeating units ranging from 5 to 300 and the group in the instant claims corresponding to this group may have repeating units ranging from 1 to 500. Therefore in this regard, the compounds of the reference are less broad than those of the instant claims. In regards to the oxyalkylene side chains, this group is encompassed by the definition of R of formula 1 when s is 3, t is 1 and u is 0 and R1 is H. Therefore the reference anticipates the instant claims.

In regards to Kumar et al., the compounds of the instant claims are encompassed by the formula disclosed in column 23. The variables a and b may range preferably from 1-30 and 1-50 respectively. G is an oxyalkylene group which encompasses R1 of the instant claims because p may range from 1-5, m ranges from 1-50 and n ranges from 0-30. When p is 3, m is 1, n is 0 and Rb is hydrogen, the formula encompasses the instant claims and one of skill in the art would be able to envision the compound when reading the reference.

Applicant thus submits herein a request for review of the final rejection before filing an appeal brief. In particular, Applicant requests review of the 9/17/2008 final office action novelty rejections based on Hiwatari, Candua, and Kumar. Applicant believes the rejections to be improper for the reasons submitted in its 1/16/2009 response, and further respectfully submits the following for consideration.

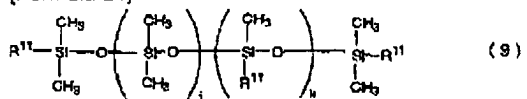
Regarding the rejection based on Hiwatari, Applicant reproduces below the sections believed to be relevant, as quoted by the Examiner. In particular, structure 9 and 10 are shown.

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[0031] These oxyalkylene group content denaturation dimethylpolysiloxane, Carry out copolymerization of dimethylsiloxane and the siloxane which has an oxyalkylene group like the above, or dimethylpolysiloxane is back-denaturalized with a compound which has an oxyalkylene group like the above. Although obtained by introducing an oxyalkylene group into a dimethylpolysiloxane skeleton, in this invention, a copolymer of dimethylsiloxane and a siloxane which has a polyoxyalkylene group of said polymer skeleton is preferred in inside. As polyether denaturation dimethylpolysiloxane, what is shown with the following formula (9) or (10) is still more preferred.

[0032]

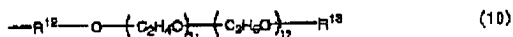
[Formula 20]



R<sup>11</sup> among a formula the ether bond content group or methyl group shown with a following formula (10). (However, no R<sup>11</sup> shall serve as a methyl group simultaneously). R<sup>12</sup> the hydrocarbon group of bivalence with a single bond or 1-6 carbon atoms, R<sup>12</sup> — an alkyl group with a hydrogen atom or 1-12 carbon atoms -- j and k — respectively — the number of 1-1,000 — l<sub>1</sub> and l<sub>2</sub> show the number of 0-50 (however, it is l<sub>1</sub>+l<sub>2</sub>≧1), respectively.

[0033]

[Formula 21]



As a commercial item of such polyether denaturation dimethylpolysiloxane, For example, "KF945A", "KF351A", "KF354A" (Shin-Etsu Chemical Co., Ltd.), "SH3771C", "SH3749" (Dow Corning Toray Silicone, Inc.), "L-7602C", "L-720" (Nippon Unicar, Inc.), "SF1066" (general electrics company), etc. can be illustrated. As a methylphenyl polysiloxane, what is shown with the following formula (11) or (12) is preferred.

[0034]

Applicant respectfully submits that in formula 10 of Hiwatari, no less than 2500 (50 x 50) oxyalkylene species are represented in this formula, not including possibilities or variations for the R<sup>13</sup> endgroup. Furthermore, Applicant notes the expressed teachings of Hiwatari to "polyethers". Applicant submits presently claimed R<sup>1</sup> would not be considered as a "polyether" to one skilled in the art. Thus, Applicant respectfully submits that one skilled in the art, upon reading Hiwatari, would not immediately recognize the presently claimed siloxanes having the defined R<sup>1</sup> hydrocarbyl group.

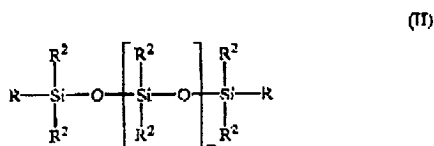
Regarding the rejection based on Candau, Applicant reproduces below the sections believed to be relevant, as quoted by the Examiner. In particular, structure II is shown.

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A silicone emulsifier which is very particularly preferred for inclusion in the compositions according to the invention is an oxyalkylene silicone substituted at the  $\alpha$ - and  $\omega$ -positions, having a linear structure, substituted at the two ends of the main chain by oxyalkylene groups bonded to the Si atoms via a hydrocarbon-comprising group. More particularly preferred are the silicones having the following structural formula (II):



in which R is a radical  $-(CH_2)_sO-(C_2H_4O)_t(C_3H_6O)_uR^1$  wherein  $R^1$  is H,  $CH_3$  or  $CH_2CH_3$ , s is an integer ranging from 1 to 5, t ranges from 1 to 100 and u ranges from 0 to 50, with the proviso that the  $(C_2H_4O)$  and  $(C_3H_6O)$  structural units may be distributed randomly or in blocks, the  $R^2$  radicals are each a  $C_1$ - $C_3$  alkyl radical or a phenyl radical, and  $5 \leq m \leq 300$ .

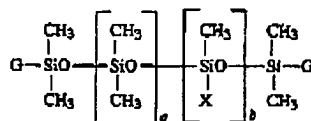
The oxyalkylenated silicones substituted at the  $\alpha$ - and  $\omega$ -positions according to the present invention preferably have the formula (II) in which each of the  $R^2$  radicals is a methyl radical, s ranges from 2 to 4; t ranges from 3 to 100; and m ranges from 50 to 200.

Applicant respectfully submits that in formula (II) of Candau, no less than 5000 (50 x 1000) oxyalkylene species are represented in this formula, not including possibilities or variations for the  $R^1$  endgroup (including these would increase the variations 3x to 15,000). Furthermore, Applicant notes the expressed teachings of Candau to "emulsifiers" and multiple oxyalkylene groups. In particular, Candau preferred structures have a minimum of 3 ethylene oxide units (t, or l as incorrectly shown in the structure, ranges from 3 to 100). Thus, Applicant respectfully submits that one skilled in the art, upon reading Candau, would not immediately recognize the presently claimed siloxanes having the defined  $R^1$  hydrocarbyl group.

Regarding the rejection based on Kumar, Applicant reproduces below the sections believed to be relevant, as quoted by the Examiner. In particular, the structure of column 23 is shown.

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Oxyalkyl/cnc-modified organosiloxane type surface active agents which can emulsify water into the oily components of the cosmetic composition can be used as additional components without any special restriction. Oxyalkylene-modified organosiloxanes include polyether-modified silicones, and alkylpolyether-modified silicones. Organosiloxanes shown below are presented as examples and are not limited by any means.



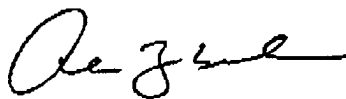
wherein G represents  $\text{CH}_3$ , or  $(\text{CH}_2)_p\text{O}(\text{C}_2\text{H}_4\text{O})_m(\text{C}_3\text{H}_6\text{O})_n\text{R}_a$ , or  $(\text{OC}_2\text{H}_4)_m(\text{OC}_3\text{H}_6)_n\text{OR}_b$ , wherein p is 1-5, m is 1-50 and n is 0-30;  $\text{R}_a$  and  $\text{R}_b$  represents a hydrogen atom or an alkyl group having 1-5 carbon atoms; X represents  $(\text{CH}_2)_p\text{O}(\text{C}_2\text{H}_4\text{O})_m(\text{C}_3\text{H}_6\text{O})_n\text{R}_a$ , or  $(\text{OC}_2\text{H}_4)_m(\text{OC}_3\text{H}_6)_n\text{OR}_b$ , wherein p, m, and n have the same meaning as defined above; a is 1-300, and preferably 1-30; and b is 1-350, and preferably 1-50. Each G and X can be same or different in a molecule. Moieties represented by repeating units a and b may also be present in a random fashion.

Applicant respectfully submits that the formula in column 23 of Kumar, no less than 1500 (30 x 50) oxyalkylene species are represented in this formula, not including possibilities or variations for the  $\text{R}_a$  or  $\text{R}_b$  endgroups (including these would increase the variations 6x to 9,000). Furthermore, Applicant notes the expressed teachings of Kumar to "surface active agents" and polyether groups. Thus, Applicant respectfully submits that one skilled in the art, upon reading Kumar, would not immediately recognize the presently claimed siloxanes having the defined  $\text{R}^1$  hydrocarbyl group.

Applicant respectfully submits the 9/17/2008 final rejection to be improper, and requests reconsideration in view of the above arguments.

Respectfully submitted,

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